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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/471,964	12/23/1999	CYNTHIA L. BICKERSTAFF	10559/096001	8158

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EXAMINER
BOUTAH, ALINA A

ART UNIT	PAPER NUMBER
2143	

9

DATE MAILED: 06/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/471,964	BICKERSTAFF ET AL.
	Examiner	**Art Unit**
	Alina N Boutah	2143

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _27 March 2003_ .

2a)☒ This action is **FINAL**.　　　2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-9,11-19 and 21-29_ is/are pending in the application.

　　4a) Of the above claim(s) _10,11 and 20_ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-9,11-19 and 21-29_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☒ The proposed drawing correction filed on _27 March 2003_ is: a)☒ approved b)☐ disapproved by the Examiner.

　　If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☐ All b)☐ Some * c)☐ None of:

　　　1.☐ Certified copies of the priority documents have been received.

　　　2.☐ Certified copies of the priority documents have been received in Application No. _____ .

　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
　　　　　application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

　　a)☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)　　　　　　　　4)☐ Interview Summary (PTO-413) Paper No(s). _____ .

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)　5)☐ Notice of Informal Patent Application (PTO-152)

3)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .　6)☐ Other:

DETAILED ACTION

Response to Amendment

This action is in response to Amendment received March 27, 2003. Claims 1-9, 11-19 and 21-29 are pending in the present application.

Drawings

The corrected drawings were received on March 27, 2003. These drawings are acceptable.

Claim Rejections - 35 USC § 112

Due to Applicants' amendment, the rejections of claims 1, 11, and 21 are now withdrawn.

Response to Arguments

Applicant's arguments, see page 18, filed March 27, 2003, with respect to the rejection(s)of claim(s) 1-9, 11-19, and 21-29 under 35 U.S.C 102(e) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made as being unpatentable over Haggard et al. in view of Boyd et al.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

Claims 1-7, 11-17, and 21-27 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Haggard et al. in view of USPN 6,317,787 issued to Boyd et al.

Regarding claims 1, 11, and 21, Haggard et al. teach a method (claim 1), a system (claim

11), and a computer program (claim 21) for real-time measurement of the performance of

communications on a large area network between a selected server and a plurality of users, based

upon actual user experience, including:

(a) accessing a server log having records of actual user access to the selected server

(Abstract);

(b) aggregating records from the server log into a database (col. 7, lines 22-44);

(c) performing at least one statistical analysis of each time bin on each aggregate slot

(col. 7, lines 22-44); and

(d) outputting the results of such statistical analysis as an indication of actual server usage

by users (Abstract; col. 2, lines 51-67 – col. 3, lines 1-6; col. 7, lines 23-44; figure 5).

However, Haggard et al. fail to explicitly teach: (b) aggregating records from the server

log into a plurality of aggregate slots, each **slot** having at least one time bin **which represents an**

interval of time, based on an aggregation method; and (c) performing at least one statistical

analysis **separately** of each time bin on each aggregate slot.

Boyd et al. teach: (b) aggregating records from the server log into a plurality of aggregate

slots, each **slot** having at least one time bin **which represents an interval of time**, based on an

aggregation method (figure 5; col. 1, lines 27-35; col. 2, lines 5-11; col. 3, lines 47-59; col. 8,

lines 37-42); and

(c) performing at least one statistical analysis **separately** of each time bin on each

aggregate slot (col. 3, lines 47-59; col. 4, lines 10-25).

At the time the invention was made, it would have been obvious to one of ordinary skill

in the art to aggregate records into a plurality of aggregate slots having time bin and analyzing

the slots separately in order to identify trends, statistics and other information regarding traffic

data (col. 4, lines 18-20), therefore, facilitating in analyzing user's experience on the network.

Regarding claims 2, 12, and 22, Haggard et al. fail to teach the method of claim 1, the

system of claim 11, and the computer program of claim 21, further including filtering out

selected records from the server log before the step of aggregating. Boyd et al. teach filtering out

selected records from the server log (figures 6 and 7, no. 64). At the time the invention was

made, it would have been obvious to one of ordinary skill in the art to filter out selected records

from the server before the step of aggregating in order to remove unwanted records that will not

be analyzed, thus improving the speed in making performance analysis.

Regarding claims 3, 13, and 23, Haggard et al. teach the method of claim 1, the system of

claim 11, and the computer program of claim 21, further including generating an event

notification if a selected statistical analysis value is abnormal (figures 6A-B; col. 7, lines 61-67 –

col. 8, lines 1-16).

Regarding claims 4, 14, and 24, Haggard et al. teach the method of claim 1, the system of

claim 11, and the computer program of claim 21, further including selecting the aggregation

method from a set of aggregation methods (col. 7, lines 23-44).

Regarding claims 5, 15, and 25, Haggard et al. teach the method of claim 1, the system of

claim 11, and the computer program of claim 21, wherein the aggregation method includes

aggregation by log-file record column data value for each record from the server log (col. 6, lines

61-67 – col. 7, lines 1-15).

Regarding claims 6, 16, and 26, Haggard et al. teach the method of claim 1, the system of

claim 11, and the computer program of claim 21, further including: selecting an aggregation

method to aggregate records (col. 7, lines 23-44). However, Haggard et al. fail to teach:

(e) determining geographical or source information for each record; and

(f) selecting the aggregation method to aggregate records based on such geographical or

source information.

Boyd et al. teach (e) determining geographical or source information for each record (col.

3, lines 48-59; col. 4, lines 26-45; col. 5, lines 66-67 – col. 6, lines 1-10). At the time the

invention was made, it would have been obvious to one of ordinary skill in the art to select the

aggregation method to aggregate records based on source information (f) in order to analyze and

produce statistical reports and summaries by way of user activity (col. 4, lines 64-67 – col. 5,

lines 1-5).

Regarding claims 7, 17, and 27, Haggard et al. fail to teach the method of claim 1, the

system of claim 11, and the computer program of claim 21, the method of claim 6, the system of

claim 16, and the computer program of claim 26, wherein determining geographical or source

information for each record includes:

(g) defining a database comprising large area network address blocks having

geographical or source information;

(h) comparing an address field in each record to the address blocks in the database; and

(i) associating with each record the geographical or source information from an address

block matching the address field of the record.

Boyd et al. teach: (g) defining a database comprising large area network address blocks

having geographical or source information (col. 4, lines 40-45).

Although Boyd et al. do not expressly teach (h) comparing an address field in each record

to the address blocks in the database; and (i) associating with each record the geographical or

source information from an address block matching the address field of the record, Boyd et al.

teach a method of using analysis results collected into a log file or database for building

geographic and other summaries (col. Lines 40-45). In order to determine geographical or

source information, it is obvious that an address (e.g. IP address) can be somehow compared to a

pre-defined address in a database that contains geographical or source information, once found, the addresses can be associated together, thus providing a geographic information.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to employ (g), (h), and (i) to determine geographical or source information in order to analyze and produce statistical reports and summaries by way of user activity (col. 4, lines 64-67 – col. 5, lines 1-5).

Claims 8, 18, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haggard et al. in view of USPN 5,946,679 issued to Ahuja et al.

Regarding claims 8, 18, and 28, Haggard et al. fail to teach the method of claim 7, the system of claim 17, and the computer program of claim 27, wherein comparing an address field in each record to the address blocks in the database includes:

(j) defining an array of binary trees for the address blocks in the database, each address block within a binary tree within an array element being masked by a corresponding unique subnet mask value;

(k) masking each address field in each record by a unique subnet value corresponding to a selected array element;

(l) comparing each masked address field to an address field of the address blocks within the binary tree of the selected array element;

(m) outputting selected fields of any matching address block; and

(n) otherwise, continuing the step of comparing with a next selected array element until a match if found or all array elements have been compared.

Ahuja et al. teach:

(j) defining an array of binary trees for the address blocks in the database, each address

block within a binary tree within an array element being masked by a corresponding unique

subnet mask value (col. 3, lines 10-16);

although Ahuja et al. do not explicitly teach (k) masking each address field in each record

by a unique subnet value corresponding to a selected array element, it is well known in the art

that all network addresses such as IP address has a subnet mask associated with it;

(l) comparing each masked address field to an address field of the address blocks within

the binary tree of the selected array element (col. 3, lines 15-20);

(m) outputting selected fields of any matching address block (col. 3, lines 17-20); and

(n) otherwise, continuing the step of comparing with a next selected array element until a

match if found or all array elements have been compared (col. 3, lines 17-20).

At the time the invention was made, it would have been obvious to one of ordinary skill

in the art to employ (j) – (n) in order to facilitate geographical information determination, thus

facilitating user's usage statistical analysis.

Claims 9, 19, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Haggard et al. in view of USPN 4,967,345 issued to Clarke et al.

Regarding claims 9, 19, and 29, Haggard et al. teach the method of claim 1, the system of

claim 11, and the computer program of claim 21, including a statistical analysis of records from a

server log and responding to performance data that surpasses an associated threshold (Abstract).

However, Haggard et al. fail to further teach:

(o) determining exit routing paths from each selected server based on the records from the server log;

(p) determining a best performing exit route based on the statistical analysis of records from the server log;

(q) biasing incoming and outgoing communications with respect to each server to use the determined best performing exit route.

Clarke et al. teach determining a best route through a network from one node to another (Abstract; col. 2, lines 4-11). At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teaching of Clark et al. (best route) and the teaching of Haggard et al. (records from server log) in order to allow the administrator to monitor and regulate network traffic, thus improving the network communications performance.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Alina N Boutah whose telephone number is (703) 305-5104. The

examiner can normally be reached on Monday-Friday (8:30 am-5:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, David A Wiley can be reached on (703) 308-5221. The fax phone numbers for the

organization where this application or proceeding is assigned are (703) 746-9112 for regular

communications and (703) 305-3718 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is (703) 305-3900.

ANB
May 28, 2003

DAVID WILEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100